

III. REMARKS

Applicants gratefully acknowledge the Examiner's Interview conducted between Examiners Lucy Chien and Andrew Schechter, and Applicants' attorney, Wesley Ashton, on April 22, 2009 (See Examiner's Interview Summary, dated April 22, 2009).

By the present amendment, the previous substitute specification filed on October 1, 2008 has been further amended to address minor informalities, and to indicate that Figures 1 to 4 represent prior art. The specification has also been amended to describe "contact means 42" as a "contact member" (i.e., "a constituent part of any structural or composite whole," see, e.g., RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY 845 (1991), a copy of which is filed herewith), as shown in Figures 5, 6 and 7 of Applicants' original disclosure. The specification has also been amended to describe subject matter shown in original Figures 5, 6 and 7, namely, that

"the contact means 42 has a thickness (i.e., the measure of the smallest dimension of the solid contact means 42), and the first parts 30a, 34a of the conductive paths 30, 34 are separate component parts of the conductive paths that contact the contact means 42. The thickness (i.e., the measure of the smallest dimension of the solid first parts 30a, 34a) of the first parts 30a, 34a is substantially less than the thickness of the contact means 42. As also shown in Figures 5, 6 and 7, the second parts 30b, 34b of the conductive paths 30, 34 are separate component parts of the conductive paths that also contact the contact means 42. The thickness (i.e., the measure of the smallest dimension of the solid second parts 30b, 34b) of the second parts 30b, 34b is substantially less than the thickness of the contact means 42. Consequently, the thickness of the contact means 42 is thicker than the thicknesses of the first part 30a, 34a and of the second part 30b, 34b of the conductive paths 30, 34 as shown in Figures 5, 6 and 7."

Filed herewith is a copy of page 1386 of RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY (1991) to show that the term "thickness" means "the measure of the smallest dimension of a solid figure."

Claims 14, 15, 18, 21 and 33-40 have been amended to replace “contact means” with -contact member-- to emphasize that the element is a constituent part of a structural whole as shown in Figures 5, 6 and 7.

Claims 14 and 21 have been further amended to delete the phrase “continuously or discontinuously” so as to recite “a contact member arranged on an edge, or on back, or on the edge and on the back, of said cell” as shown in Figures 5, 6 and 7 of Applicants’ disclosure as originally filed. Claims 14 and 21 have also been amended to recite “and the first separate component part and the second separate component part are disposed so that each contacts the contact member” as shown in Figures 5, 6 and 7 of Applicants’ disclosure as originally filed. Claim 15 has been further amended to recite “conductive bumps” as supported on page 7, lines 28-30, of Applicants’ specification as originally filed.

Claims 39 and 40 depend upon claims 14 and 21, respectively, and have been amended to recite

“wherein the contact member has a first thickness and the first separate component part has a second thickness and the second separate component part has a third thickness, wherein the first thickness is thicker than the second thickness and the first thickness is thicker than the third thickness”

as shown in Figures 5, 6 and 7 of Applicants’ disclosure as originally filed.

The present amendment adds no new matter to the above-captioned application.

Claims 14-40 are pending. Claims 30 and 32 have been withdrawn because they pertain to non-elected subject matter. Applicants respectfully request that claim 32 be rejoined with the base claim once it has been allowed because claim 32 incorporates all of the subject matter of the generic base claim 14.

A. The Invention

The present invention pertains broadly to a display cell such as may be used as a display device for an electronic device. In accordance with an embodiment of the present

invention, an electro-optical display cell is provided that includes features recited by independent claim 14. In accordance with another embodiment of the present invention, a multi-layered liquid crystal display cell is provided that includes features recited by independent claim 21. Various other embodiments, in accordance with the present invention, are recited by the dependent claims.

An advantage provided by the display cell embodiments of the present invention is that these devices include conductive paths that are reliably formed and that exhibit good electrical conductivity even in places where they match the back edge of the cell.

B. The Rejections

Claims 14-17, 19, 20, 31, 33, 35 and 37 stand rejected under 35 U.S.C. § 102(b) as anticipated by Atsushi (JP Document No. 56-075,624, hereafter the “Atsushi Document”). Claims 21, 23, 25, 34, 36 and 38 stand rejected under 35 U.S.C. § 102(e) as anticipated by Mandai et al. (U.S. Patent Application Publication No. 2001/0015788, hereafter the “Mandai Publication”).

Claim 18 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the Atsushi Document in view of Kozuka et al. (U.S. Patent Application Publication No. 2001/0046021, hereafter the “Kozuka Publication”). Claim 22, 24 and 26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the Atsushi Document in view of Kuroki et al. (U.S. Patent Application Publication No. 2002/0051102, hereafter the “Kuroki Publication”). Claim 27 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the Mandai Publication in view of the Kuroki Publication. Claim 28 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the Atsushi Document in view of Wada (U.S. Patent Application Publication No. 2002/0019069, hereafter the “Wada Publication”). Claim 29 stands rejected under 35 U.S.C. § 103(a) as unpatentable over the Mandai Publication in view of the Wada Publication.

Applicants respectfully traverse the Examiner's rejections and request reconsideration of the above-captioned application for the following reasons.

C. Applicants' Arguments

i. The Section 102 Rejection

Anticipation under 35 U.S.C. § 102 requires showing the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claims. Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). In this case, the Examiner has failed to establish a prima facie case of anticipation against the claimed invention because both the Atsushi Document and the Mandai Publication fail to teach each and every limitation as arranged as in the claims.

ii. The Atsushi Document

The disclosure of the Atsushi Document is discussed on page 12, line 3, to page 17, line 10, of Amendment (F), filed April 6, 2009, and which is incorporated herein by reference. The Atsushi Document does not teach, or suggest, (i)

“a contact member arranged on an edge, or on back, or on the edge and on the back, of said cell thereby forming an electrical junction disposed between the first separate component part and the second separate component part of each conductive path, wherein the electric junction provides direct conductive continuity between the first separate component part and the second separate component part, and the first separate component part and the second separate component part are disposed so that each contacts the contact member”

as recited by claims 14 and 21, and (ii)

“wherein the contact member has a first thickness and the first separate component part has a second thickness and the second separate component part has a third thickness, wherein the first thickness is thicker than the second thickness and the first thickness is thicker than the third thickness”

as recited by claims 39 and 40.

For all of the above reasons, the Atsushi Document fails to anticipate the subject matter of claims 14-29 and 31-40 of the above-captioned application.

iii. The Mandai Publication

The disclosure of the Mandai Publication is discussed on page 17, line 11, to page 22, line 4, of Amendment (F), filed April 6, 2009, and which is incorporated herein by reference.

The Mandai Publication does not teach, or suggest, (i)

“a contact member arranged on an edge, or on back, or on the edge and on the back, of said cell thereby forming an electrical junction disposed between the first separate component part and the second separate component part of each conductive path, wherein the electric junction provides direct conductive continuity between the first separate component part and the second separate component part, and the first separate component part and the second separate component part are disposed so that each contacts the contact member”

as recited by claims 14 and 21, and (ii)

“wherein the contact member has a first thickness and the first separate component part has a second thickness and the second separate component part has a third thickness, wherein the first thickness is thicker than the second thickness and the first thickness is thicker than the third thickness”

as recited by claims 39 and 40.

For all of the above reasons, the Mandai Publication fails to anticipate the subject matter of claims 14-29 and 31-40 of the above-captioned application.

iv. The Section 103 Rejections

A prima facie case of obviousness requires a showing that the scope and content of the prior art teaches each and every element of the claimed invention, and that the prior art provides some teaching, suggestion or motivation, or other reason, for combining the references in the manner claimed. KSR International Co. v. Teleflex Inc., 127 S.Ct. 1727, 1739-41 (2007); In re Oetiker, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). In this case, the Examiner

has failed to establish a prima facie case of obviousness against the claimed invention because neither the Atsushi Document, the Mandai Publication, the Kozuka Publication, the Kuroki Publication, nor the Wada Publication, either alone or in combination, teaches or suggests each and every claimed limitation arranged as in the claims.

v. The Atsushi Document

The disclosure of the Atsushi Document is discussed above. As admitted by the Examiner (Office Action, dated November 15, 2008, at 7, lines 14-15; at 8, lines 6-7; and at 9, lines 10-12), the Atsushi Document does not teach, or suggest, (i) “the contact means take the form of a tape of anisotropic conductive material” as recited by claim 18; (ii) “a power circuit or the control circuit is mounted on the back of the cell” as recited by claims 22, 24, 26 and 27; and (iii) “a transparent or coloured absorbent layer for relaxing thermo-mechanical stresses and able to resist a chemical etch bath is deposited on the back of the cell” as recited by claims 29 and 30.

vi. The Mandai Publication

The disclosure of the Mandai Publication is discussed above. As admitted by the Examiner (Office Action, dated November 15, 2008, at 8, lines 17-18; and at 10, lines 2-4), the Mandai Publication does not teach, or suggest, (i) “a power circuit or the control circuit is mounted on the back of the cell” as recited by claim 27; and (ii) “a transparent or coloured absorbent layer for relaxing thermo-mechanical stresses and able to resist a chemical etch bath is deposited on the back of the cell” as recited by claim 29.

vii. The Kozuka Publication

The Kozuka Publication discloses a “conductive particle to conductively bond conductive members to each other, an anisotropic adhesive containing the conductive particle, a liquid crystal display device using the anisotropic conductive adhesive, [and] a method for manufacturing the liquid crystal display device” (See Abstract of the Kozuka Publication).

viii. The Kuroki Publication

The Kuroki Publication discloses a “display device, manufacturing method thereof and image terminal unit employing the same” (See Abstract of the Kuroki Publication).

ix. The Wada Publication

The Wada Publication discloses an “optical element and method of manufacturing the same, and electronic instrument” (See Abstract of the Wada Publication).

x. Summary of the Disclosures

The Atsushi Document, the Mandai Publication, the Kozuka Publication, the Kuroki Publication, and the Wada Publication, either alone or in combination, still fail to teach, or even suggest, (i)

“a contact member arranged on an edge, or on back, or on the edge and on the back, of said cell thereby forming an electrical junction disposed between the first separate component part and the second separate component part of each conductive path, wherein the electric junction provides direct conductive continuity between the first separate component part and the second separate component part, and the first separate component part and the second separate component part are disposed so that each contacts the contact member”

as recited by claims 14 and 21, and (ii)

“wherein the contact member has a first thickness and the first separate component part has a second thickness and the second separate

component part has a third thickness, wherein the first thickness is thicker than the second thickness and the first thickness is thicker than the third thickness”

as recited by claims 39 and 40.

For all of the above reasons, the Examiner has failed to establish a prima facie case of obviousness against the subject matter of claims 14-29 and 31-40.

V. CONCLUSION

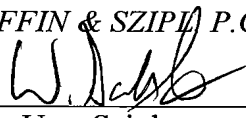
The Examiner has failed to establish either a prima facie case of anticipation, or of obviousness, against claims 14-29 and 31-40 because the Atsushi Document, the Mandai Publication, the Kozuka Publication, the Kuroki Publication, and the Wada Publication, either alone or in combination, still fail to teach, or even suggest, each and every limitation of the claims arranged as in the claims.

For all of the above reasons, claims 14-29 and 31-40 are in condition for allowance and a prompt notice of allowance is earnestly solicited. Furthermore, while claim 32 pertains to subject matter of a non-elected species, claim 32 should be rejoined with generic claim 14.

Questions are welcomed by the below-signed attorney for Applicants.

Respectfully submitted,

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